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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,443	08/26/2003	Robert J. Higgins	CM06374J	5767

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EXAMINER

MILORD, MARCEAU

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,443

Applicant(s)

HIGGINS ET AL.

Examiner

Marceau Milord

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-26 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15, 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ylijurva (US Patent No 6140970) in view of Park (US Patent No 6408188B1).

Regarding claims 1-3, Ylijurva discloses an antenna for a portable communication device (figs. 2 and 4), the antenna (22 of fig. 2; col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15).

However, Ylijurva does not specifically disclose the feature of a memory device programmed with antenna parameters.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the

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short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Claims 4-6 contain similar limitations addressed in claims 1-3, and therefore are rejected under a similar rationale.

Regarding claim 7, Ylijurva as modified discloses an antenna for a portable communication device (figs. 2 and 4), further comprising a single coaxial connector and the at least one single wire device being electrically coupled thereto (col. 6, lines 16-39).

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Regarding claim 8, Ylijurva discloses an antenna (figs. 2 and 4; col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15); and a single coaxial antenna connector, the single coaxial connector enabling both RF transport and single wire bus communications (col. 5, lines 18-33).

However, Ylijurva does not specifically disclose the feature of a memory device programmed with antenna parameters.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals

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from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Regarding claims 9-10, Ylijurva discloses a radio and antenna interface system (figs. 2 and 4), comprising: a radio including radio electronic circuitry for duplexing RF and baseband signals; an antenna including antenna electronic circuitry for duplexing RF and baseband signals; a coaxial interface coupling the radio and the antenna, the coaxial interface providing a transport for both the RF and baseband signals (col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15).

However, Ylijurva does not specifically disclose the feature of a memory device embedded in the antenna and coupled to the coaxial interface, wherein the memory device is a single wire memory device.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for

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temporarily storing the data generated during execution of the operational program. The RAM typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Regarding claim 11, Ylijurva as modified discloses a radio and antenna interface system (figs. 2 and 4), comprising at the radio: a radio coaxial center conductor capacitively coupled to pass RF signals while blocking baseband signals; and the radio coaxial center conductor also being DC coupled through an RF blocking inductor to pass baseband signals; at the antenna: an antenna coaxial center conductor for coupling to the radio coaxial center conductor; a radiator element coupled to the antenna coaxial center for passing RF signals; and an inductor coupled to the antenna coaxial center for blocking RF signals and passing baseband signals to and from the memory device (col. 5, lines 9-64).

Regarding claims 12 and 14, Ylijurva discloses an antenna, comprising: an antenna center conductor (col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15).

However, Ylijurva does not specifically disclose the feature of a memory device, wherein the single wire memory device comprises an EEPROM.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Regarding claim 13, Ylijurva as modified discloses an antenna, wherein the antenna center conductor transports both RF and baseband signals (col. 5, lines 4-30).

Regarding claims 15 and 18, Ylijurva discloses an antenna interface system (figs. 2 and 4), comprising: an antenna center conductor, and a radio center conductor for coupling to the antenna center conductor (col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15).

However, Ylijurva does not specifically disclose the feature of a memory device, wherein the single wire memory device provides efficiency as a function of frequency parameters and the radio utilizes these parameters for leveling the radio's effective rated power over a frequency range.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Park shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM

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typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Regarding claim 19, Ylijurva as modified discloses an antenna interface system (figs. 2 and 4), further comprising additional devices within the antenna for controlling predetermined antenna parameters.

Regarding claim 20, Ylijurva as modified discloses an antenna interface system (figs. 2 and 4), wherein the additional devices include a parallel output single wire I/O device (col. 6, lines 36-59).

Regarding claim 21, Ylijurva as modified discloses an antenna interface system (figs. 2 and 4), wherein the parallel output single wire I/O device opens and closes switch contacts to alter the operating frequency of the antenna (col. 5, line 34- col. 6, line 15).

Regarding claims 22-23, Ylijurva discloses an antenna (figs. 2 and 4), comprising: an antenna center conductor, and at least one single wire bus device electrically coupled to the antenna (col. 5, line 34- col. 6, line 15).

However, Ylijurva does not specifically disclose the feature of dynamically control operating parameters of the antenna, wherein the at least one single wire bus device dynamically alters the frequency of operation of the antenna.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Regarding claims 24-26, Ylijurva discloses an antenna for coupling to a portable communication device (figs. 2 and 4), the antenna comprising a device for storing antenna parameters, the radio determining whether a correct antenna has been coupled thereto based on the antenna parameters (col. 3, lines 13-43; col. 5, lines 1-41; col. 6, lines 5-15; col 5, line 44- col. 6, line 15).

However, Ylijurva does not specifically disclose the features of a memory device, a radio providing an error message when an incorrect antenna has been coupled thereto, wherein the memory device comprises a single wire memory device, wherein the radio automatically adjusts radio operations in response to the stored antenna parameters.

On the other hand, Park, from the same field of endeavor, discloses a method of sending a short message to a receiver at a predetermined time in a digital mobile phone, which includes the steps of changing the operational mode of the mobile phone from a short message preparation mode to a multiply addressed sending mode, sequentially registering a series of phone numbers designating the receivers to receive the short message, sequentially sending the short message to the receivers according to the order of the registered phone numbers when a send signal is inputted, and setting the mobile phone to a standby mode when the short message has been sent to each of the receivers (col. 1, lines 31-55; col. 2, lines 13-15). Furthermore, Pak shows in figure 1, a memory device that is operatively coupled to the microprocessor, and includes ROM for storing the operational program required to control the phone, and RAM for temporarily storing the data generated during execution of the operational program. The RAM

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typically serves as a buffer. Also included in the memory device is an electrically erasable and programmable ROM to store optional data for the operational program, and a scheduled time storage area for storing scheduled times (col. 2, lines 15-45). In addition, a radio frequency part includes a duplexer for separating the radio signals transmitted and received through an antenna ANT, a receiver for demodulating the radio signals received through the antenna ANT into the base band signals applied to the signal processor, and a transmitter for modulating the signals from the signal processor into the radio signals (col. 2, lines 37-67; col. 3, lines 10-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Park to the communication system of Ylijurva in order to include a memory device that can be programmed with antenna parameters.

Allowable Subject Matter

3. Claims 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to claims 1-15, 18-26 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MARCEAU MILORD


MARCEAU MILORD
PRIMARY EXAMINER

Marceau Milord

Primary Examiner

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